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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,031	11/18/2003	Wallace W. Grabbe	3119	7338

7590 02/10/2005

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EXAMINER

SHRIVER II, JAMES A

ART UNIT	PAPER NUMBER
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3618

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/717,031

Applicant(s)

GRABBE, WALLACE W.

Examiner

J. Allen Shriver

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Reference number “30” is not shown in the Drawings. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 1 is objected to because of the following informalities: in line 15, the phrase “motor generators” is incorrect, because the claim has set forth only one motor generator previously. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takaoka et al. (US Patent 6,522,024 B1) in view of Nishigaki et al. (US Patent 6,837,215 B2).** Takaoka et al. discloses a gas-electric hybrid drive system for a vehicle, the system comprising a first drive train including an input shaft (15), an output shaft (6,7) and an electric motor generator (2) interconnecting the input and output shafts with a one to one torque ration; a planetary gear set (4) disposed between said first electric motor generator and said input shaft (See Fig. 1), said planetary gear set maintaining the one to one torque ration between said input shaft, said first electric motor generator and said output shaft; a second drive train including an electric generator (3) interconnected to said output shaft through said planetary gear set; a battery pack (8) electrically connected to both the motor generator and generator (See Fig. 1); and a controller (10,12,13) for causing said generator to provide torque to said output shaft through the motor generator and said planetary gear set for acceleration of output shaft RPM (See column 4, line 60+) and to charge said battery pack during deceleration and steady state output shaft RPM (See column 4, lines 1-7); **[claims 2 and 6]** further comprising an engine (1) for driving said input shaft; **[claims 3 and 7]** further comprising a throttle control for controlling engine RPM input shaft torque (See Fig. 2); **[claims 4 and 8]** wherein said throttle control is connected to said controller for providing input thereto in order for the controller to effect battery pack charging during acceleration, deceleration and steady output shaft RPM (See Fig. 2); **[claims 5 and 9]** wherein said engine is a gasoline engine.

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Takaoka et al. does not specifically disclose wherein the controller causes said motor generator to utilize excess torque of said input shaft to charge said battery pack. Nishigaki et al. discloses a hybrid vehicle having a controller (40) that causes said motor generator to utilize excess torque of said input shaft to charge said battery pack (See column 7, lines 27-49). At the time of the invention, it would have been obvious to a person of ordinary skill in this art to have the controller disclosed in Takaoka et al. allow said motor generator to utilize excess torque of said input shaft to charge said battery pack as taught by Nishigaki et al. The motivation for doing so would have been to allow the motor generators to convert excess torque produced from the engine into electrical power stored in the battery, because the engine's power output is set according to optimal fuel economy and efficiency regardless of the power requirements of the vehicle (See column 3, line 8+).

Conclusion

5. The prior art made of record in the accompanying PTO Form 892 and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Allen Shriver whose telephone number is (703) 308-1224. The examiner can normally be reached on Mon-Thurs 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris P. Ellis can be reached on (703) 305-0168. Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 308-1113.

As of May 1, 2003, any response to this action should be mailed to:

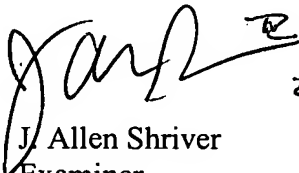
Mail Stop _____
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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Or faxed to: (703) 305-3597 or (703) 305-7687 (for formal communications intended for entry. (703) 746-3852 (for informal communications directly to the Examiner).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Friday, February 04, 2005

 2/4/05
J. Allen Shriver
Examiner
Art Unit 3618

JAS